# Oframework

# Fedora 39 Installation on the Framework Laptop 16

How to install Fedora 39 Linux on a Framework Laptop 16.

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# INTRODUCTION

Once you have your Framework Laptop 16 set up following the <u>Quick Start Guide</u>, you're ready to install your preferred OS. The Framework Laptop 16 is running some very recent hardware, and we've worked with the team at Fedora to improve support. Fedora 39 is one of the Linux distributions we recommend, as it has full hardware support with very little setup required, and it offers a great user experience overall.

One note on Fedora is that the distro follows a fairly aggressive update policy on new kernels. This means that if you have the most recent generation of hardware, there is a higher risk that a kernel update could have a driver regression. On older platforms, this is less of a risk. To avoid this risk altogether, you can use a more conservative distro like Ubuntu LTS.

This is an <u>Officially Supported Linux Distribution</u>. <u>Learn more here</u>.

# **PARTS**:

Storage Expansion Card (1)

#### Step 1 — Fedora 39 Installation on the Framework Laptop 16

Fedora Media Writer	- 🗆 X	Select Fedora Version	- 🗆 X	Select Drive	- 🗆 X
Select Image Source		Select Fedora Ro Select from: Official Editions Emerging Editions Spins Labs Fedora Workstation	elease	Write Options Version Hardware Architecture Intel/AMD 64bit USB Drive USB DISK 3.2 (1.0 TB)	~ ~
Download automatically     Select .iso file     Restore USB DISK 3.2 (1.0 TB)				Download Delete download after writing	
About	Next	Previous	Next	Previous	Write

- Fedora has a fantastic tool called Fedora Media Writer to create USB installers. It's available for Windows, OS X, and Linux. For Windows and OS X, you can download it here: <u>https://fedoraproject.org/workstation/</u>
  - If you're coming from another Fedora install or Linux distro, you can install Fedora Media Writer following the steps here: <u>https://docs.fedoraproject.org/en-US/fed...</u>
- Insert your USB drive (2GB or larger). Note that it will be reformatted, so make sure you are ok with erasing any data that is on it.
- After installing Fedora Media Writer, run it. Click Next to go to the "Select Fedora Release" screen. We'll proceed with the Official Fedora Workstation release for this guide, but there are a range of other options available. Now click Next.
- The latest version of Fedora will be selected by default. Make sure the correct USB Drive is selected in the drop down, and then click Write.
- Once the USB drive creation is complete, you can click Finish, close Fedora Media Writer, eject your USB drive, and if you'd like to, delete the downloaded ISO file.

#### Step 2 — Linux Audio Compatibility



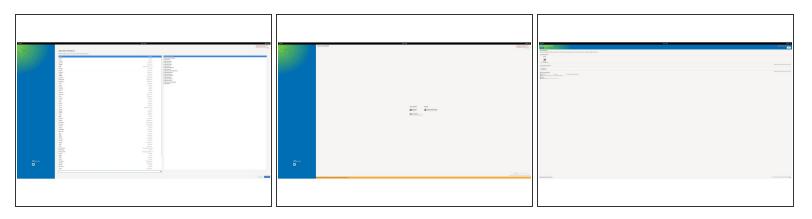
- Before we begin the installation process with the Live USB, let's make sure you have your Linux Audio Compatibility set to Linux in the BIOS.
- Power on the laptop, repeatedly tapping F2 in order to get into the BIOS. Note: If you're having trouble with this, try again, holding down the Fn key while rapidly tapping F2.
- In BIOS mode, arrow key over to Setup Utility. Press the enter key. Arrow down to Advanced. Then arrow right, then arrow down to Linux Audio Compatibility. Press enter.
- A new box for Linux Audio Compatibility will appear, arrow to Linux, then press enter. Now press F10 key to reboot.
  - Now we don't have an OS installed yet. So the reboot won't get us to a running operating system and we fully expect to see an error to this point. Simply press the power button to shutdown.
  - The next step is to install Fedora 39 at Step 3.

#### Step 3 — Booting to Live Fedora USB



- Insert the USB drive into your powered off Framework Laptop 16, and then power on. If you have an existing OS installed on the Storage drive in your laptop, immediately after the power light comes on begin rapidly tapping (continuously) the F12 key - you must begin tapping well before you see the Framework logo.
- Select Linpus lite (General UDisk) with your arrow keys. Enter key.
- Next select Start Fedora Workstation-Live 39. Hit the enter key.
- After a few seconds, you're in! If you just want to try Fedora out, you can click on the Try Fedora button and browse through the live USB version of it without touching the internal storage drive. If you do want to install Fedora to the internal storage drive, go on to the next step.

#### Step 4 — Installing Fedora to a drive



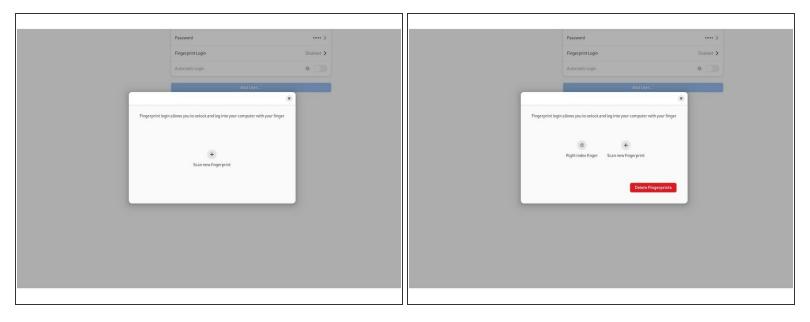
- Click on the Install Fedora button.
- Select the keyboard language you'd like to use. On the next screen, click on the Installation Destination button to choose the disk. Note that you can install Fedora onto a USB drive or a Storage Expansion Card as an alternative to installing it onto your internal drive.
  - If there is an OS already installed on the target drive, you'll need to follow the guided steps in the installer to resize partitions or delete the existing partitions. This is out of scope of this guide, but Fedora has very detailed documentation: <u>https://docs.fedoraproject.org/en-US/qui...</u>
- Click Finish Installation and then reboot into your new Fedora install!
  - The installer will close the window, but not reboot. You can click on the power icon in the top right, click Power Off / Log Out, and click Restart.

### Step 5 — Welcome to Fedora Screen - Setting Up



- Click on Start Setup button. This begins the process of completing the initial setup of your Fedora installation.
- Connect to Wi-Fi or Skip. If you wish not to connect to wireless just yet, you can skip this and return to connecting to Wi-Fi later on.
- Choose your Privacy settings. Here you can decide if you would like to allow Location Services using Mozilla Location Service or not.
- Click on Enable Third-Party Repositories. Unless you have a specific reason for not doing so, it's recommended that these repositories are enabled for access to additional drivers and applications.
- Connect Online Accounts or Skip. Connect to Google, Nextcloud or Microsoft online accounts to access your email, calendar, contacts, documents and photos.

## Step 6 — Configure the fingerprint reader



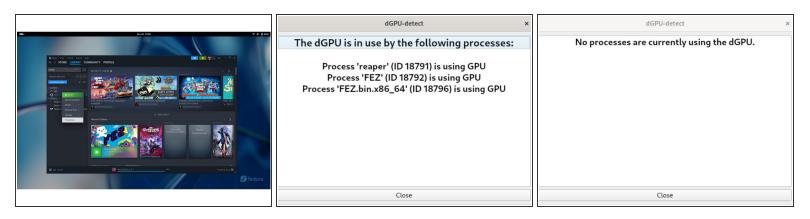
- Let's setup fingerprint login. Click on Activities, search for user.
- Choose Fingerprint Login. Then select Scan new fingerprint. Select your desired fingerprint. Carefully tap your finger tip on the sensor (power button). You may need to try a few attempts as everyone's prints are different.
- Once it's successful, you will see the word Complete.

# Step 7 — Completing Setup

This is for the Framework Laptop 16 (AMD Ryzen™ 7040 Series) ONLY.				
This will:				
Getting your laptop fully updated.     Enable improved fractional scaling support Fedora's GNOME environment using Wayland.     Enabling tap to click on the touchpad.				
<ul> <li>Step 1 Updating your software packages</li> <li>Browse to the horizontal line in the upper left corner, click to open it.</li> <li>Type out the word terminal, click to open it.</li> <li>Copy the code below in the gray box, right click/paste it into the terminal window.</li> <li>Then press the enter key, user password, enter key, reboot.</li> </ul>				
sudo dnf upgrade	d			
TIP: You can use the little clipboard icon to the right of the code to copy to your clipboard.				

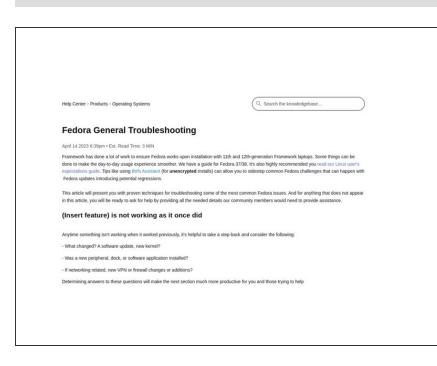
- We're almost done. Please follow the links to your individual Framework Laptop 16.
  - Click here for the completion guide for Framework Laptop 16 (AMD Ryzen™ 7040 Series).
- Our recommendations for <u>Optimizing Fedora Battery Life</u>.

# Step 8 — Using Discrete Graphics with Steam



- If you are looking to run Steam games, please follow our guide links below.
  - One NVMe Drive Guide.
  - ⑦ <u>Two NVMe Drives Guide.</u>
- ⚠ If you are unsure if something is using the dGPU, <u>use this AppImage program</u>.
- For all other applications, simply run your software with DRI\_PRIME=1 cheese (or whatever the application name is).

### Step 9 — Fedora Troubleshooting



- Expecting different touchpad behavior? <u>The touchpad help guide</u> is here.
- Need help? Please visit our troubleshooting guide first.
- New line. If you need additional help, feel free to visit our <u>active</u> <u>support community</u>.

Enjoy using Fedora on your Framework Laptop 16!